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Title: Packaging device for CD's, DVD's, information cards and the like.

The invention relates to a device for packaging plate-shaped information carriers such as CD's, DVD's and information cards.

As a rule, plate-shaped information carriers such as CD's and DVD's are packaged in cases of the Jewel-case type. The CD is then pressed down by  
5 a central opening over a rosette, built up from a number of resilient fingers which press against the inside of the central opening and on the upper side of the CD. The rosette is provided on an inlay which is inserted in a tray-shaped first cover part. A second cover part is hinged to the first cover part such that it can be pivoted over the first cover part while enclosing the CD. In practice,  
10 such a package has proven to be vulnerable and, moreover, is expensive in manufacture and use, in particular in storage, as a result of the relatively large volume and use of material. A further drawback is that this package is to be assembled and that the rosette engages in the central opening, so that this can no longer be used for taking out CD's, which proves to be cumbersome,  
15 while, furthermore, undesired stresses can occur.

As a rule, DVD's are packaged in packages manufactured substantially through injection molding. A rosette as known from the Jewel-case type of package is then integrally injection molded in a first cover part, while, again, a second cover part is provided. The two cover parts are  
20 connected via living hinges to a back and can be closed against each other. For this package too it holds that it is relatively expensive in manufacture and use and that, furthermore, the same drawbacks occur as a result of the use of the rosette. Moreover, with this package, the closing surface of the cover part in which the rosette has been formed is not closed, so that pollution can occur  
25 and, furthermore, printing or labeling the package is not possible. That is why these packages are usually provided with a plastic sleeve underneath which a print such as a paper can be slid, covering this opening.

Further, a package of the Diamond box type is known, a package preferably injection molded in one-piece wherein two cover parts are connected to a back via pivot means. On the back, pairs of resilient fingers are included between which an information carrier such as a CD or information card can be clamped, whereupon the cover parts can be closed therearound. What is prevented with such a package is that a central opening in the information carrier is to be used and, thus, undesired stresses in the information carrier are prevented while the information carrier can be taken out and placed in a simple manner. Furthermore, this package is also suitable for information carriers without central opening. This package is entirely outwardly closed. A drawback of this known package can be that, in closed condition, it is relatively thick and requires relatively much material.

The invention contemplates a package for substantially plate-shaped information carriers, wherein at least a number of the drawbacks of the known devices are obviated.

In particular, an object of the invention is to provide a package which engages a longitudinal edge of an information carrier such that both information carriers with and without a central opening can be received therein.

A further object of the invention is to provide a package which is simple in manufacture and use and requires relatively little material.

An even further object of the invention is to provide a package which is relatively light, which can be manufactured in one piece and which, in closed condition, confines an information carrier in a position-retaining manner but, with the device in open condition, allows the information carrier to be taken out in a simple manner while the information carrier, with the package in opened condition, is retained.

A still further object of the invention is to provide a package for information carriers, wherein cover parts are provided which are relatively

flexible with the package open, while the package in closed condition is relatively form-retaining.

In order to achieve at least a number of these and further objectives, a device according to the invention is characterized by the features of claim 1.

5           With a device according to the invention, an information carrier is laid on a closing surface of a cover part, in particular the first cover part, against or at a short distance from the first locking means, clamped by the second locking means. Preferably, both the first and second locking means engage the outer contour and/or the upper side of the information carrier  
10 facing away from the closing surface, so that it is securely retained against displacements approximately parallel to the closing surface as well as approximately at right angles thereto.

In a particularly advantageous embodiment, a device according to the invention is designed such that although the first and second locking  
15 means retain the information carrier when the first cover part is not deformed, they release the information carrier when this cover part is deformed, in particular when it is bent and/or twisted. The second locking means can then be designed as resilient projections engaging substantially against the outer contour of the information carrier and virtually not projecting above the upper  
20 side of the information carrier. The projections can then for instance be provided with a small closing edge engaging the upper side of the longitudinal edge of the information carrier if this is provided with a beveled outer contour as is customary with CD's, DVD's and information cards such as credit cards, chip cards and the like.

25           In a further advantageous embodiment, the closing surface of the second cover part can lie flatly on an information carrier received in the package when the package is closed, so that further locking is obtained. In an alternative advantageous embodiment, the second cover part and/or a back of the package connecting the cover parts is provided with at least one second  
30 projection or at least one third projection, respectively, which second and/or

third projection provide further locking of the information carrier when the package is closed.

Preferably, a device according to the invention is manufactured with a method wherein the package is formed in a mold, preferably in one piece through injection molding. Preferably, at least one mold cavity is then used which can undergo a volume change or wherein the mold is not completely closed at the start of an injection molding cycle. Only when the volume of required material has been introduced into the mold cavity for the larger part or virtually completely, is the mold brought into the eventual position, at least it adopts the eventual form. Also, the mold cavity can then be gradually brought into the eventual form while it is being filled. Thereafter, with the injection molding device, preferably, hold pressure is applied. Usually, to that end, a hotrunner is used. Due to this technique, particularly small wall thicknesses can be achieved while applying hold pressure results in removal of undesired stresses in the product formed, so that deformations after taking out can be prevented, at least for the larger part. With such a method, closing surfaces of the cover parts can be obtained which have a limited wall thickness, smaller than with existing packages with comparable outer dimensions, which, moreover, still remain virtually flat. For instance, wall thicknesses of less than 0.9 mm can be achieved. Preferably, wall thicknesses between 0.3 to 0.6 mm are used. As, with regard to surface, the closing surfaces constitute the largest part of the package, a reduction of its wall thicknesses yields a considerable saving in the amount of material to be used, weight and volume. Surprisingly, it has appeared that in spite thereof a sturdy, well locking package can be obtained which can be manufactured from shockproof plastics such as PE, PP, PET or combinations thereof. Suitable plastics will be directly clear to the skilled person. It will, for that matter, be clear that also different, in particular greater wall thicknesses can be used, for instance the usual wall thicknesses of 1 – 1.2 mm.

In a particularly advantageous embodiment, a package for CD's or DVD's is then provided with a total thickness of between approximately 3 mm and approximately 4 mm, more in particular of between approximately 3 and 3.3 mm, as a result of which three packages arranged next to each other  
5 approximately have a thickness comparable to that of a standard Jewel case of approximately 10 mm thickness. In a different particularly advantageous embodiment, a package is provided having a total thickness of between 4.8 and 5.2 mm, so that two such packages approximately have the thickness of a standard Jewel case of approximately 10 mm.

10 A device according to the invention is preferably manufactured in one piece from plastic, through injection molding, while, preferably, an injection molding technique is used as described in the Dutch non-published patent applications NL 1019235 and NL 1019320, incorporated herein by reference.

15 In a further advantageous embodiment, a device according to the invention is characterized in that the two cover parts are provided with upstanding edges and/or elevations such that, when the package is closed, the edge or edges of the one cover part abut against the inner side and/or outer side of the edge or edges of the other cover part. Preferably, the edges then  
20 abut against the inside of the closing surfaces such that, as a result, these are to some extent supported by them, at least are protected against bending too much. What is achieved with such an embodiment is that the cover parts themselves can be designed to be relatively flexible but that, with the package closed, still, a relatively rigid package is obtained. What is moreover achieved  
25 in this manner is that an information carrier cannot be taken from the package without this being opened in the customary manner.

In the further subclaims, repeated here, further advantageous embodiments are described. In clarification of the invention, advantageous embodiments of devices, in particular packages according to the invention, will  
30 be described as examples, with reference to the drawing. In the drawing:

Fig. 1 shows, in perspective view, an open package according to the invention, in a first embodiment;

Fig. 1A shows a package according to Fig. 1 in an alternative embodiment;

5 Figs. 2, 2A and 3 show details of a package according to the invention, with an open and closed package, respectively;

Fig. 4 shows a first alternative embodiment of a package according to the invention, in opened condition;

Fig. 5 shows, in top plan view, a second alternative embodiment;

10 Fig. 6 shows, in cross sectional side view, a package according to Fig. 5;

Fig. 7 shows a detail of a possible embodiment of a retaining element according to the invention;

Fig. 8 shows, in top plan view, a third alternative embodiment;

15 Fig. 9 shows, in cross sectional side view, a package according to Fig. 8;

Fig. 10 shows, in opened condition, in cross sectional side view, a package according to Fig. 1;

20 Fig. 11 shows in closed condition, in cross sectional side view, a package according to Figs. 1 and 10;

Figs. 12 and 13 show details of a package according to Fig. 11;

Fig. 14 schematically shows in perspective view, a device according to the invention, in a further alternative embodiment;

25 Figs. 15 – 17 show packages comparable to that according to Fig. 5, in an alternative embodiment;

Figs. 18 and 19 show a package comparable to that according to Fig. 8, in an alternative embodiment;

30 Fig. 20 shows, in perspective view, a package according to the invention, comparable to that shown in Fig. 1, but with partially different locking means;

Fig. 21 shows a detail of the package according to Fig. 20; and  
Figs. 22A-C schematically show, in three steps, taking an  
information carrier from a package according to Figs. 20 and 21.

In this description, identical or corresponding parts have identical or  
5 corresponding reference numerals. Combinations of parts of the different  
exemplary embodiments shown and described are understood to fall within the  
framework of the invention as outlined by the claims. In this description,  
information carrier is at least understood to include any substantially flat  
carrier of electronically, optically or otherwise readable information, in  
10 particular CD, DVD, diskette, minidisk, SIM-card, memory card or memory  
stick, chipcard, magnetic card or other information cards.

Fig. 1 shows, in opened condition, a package 1 according to the  
invention, in the embodiment shown, only by way of illustration, the size of a  
customary DVD-box, suitable for a CD or DVD or such substantially circular  
15 information carrier 2. The package 1 comprises a first cover part 4 and a  
second cover part 6, mutually connected by a back 8 with which the two cover  
parts 4, 6 are pivotally connected via hinge means 10. The first cover part 4 is  
provided with receiving means 12 for retaining an information carrier 2, and  
an upstanding edge 14 extending along the sides of the cover 4 there where the  
20 hinge means 10 have not been provided. The edge 14 extends at a short  
distance from the longitudinal edge 16 of the closing surface 18 of the cover 4.

The receiving means 12 comprise first locking means 17 in the form  
of a substantially closed ring 20 fixedly placed on the closing surface 18, which  
ring, at the inside, has a contour at least partially matching the outer contour  
25 of the information carrier 2. In the ring 20, second locking means 21 are  
included, in the example shown designed as two resilient projections 22 placed  
diametrically opposed to each other on a line approximately parallel to the  
hinges 10. These projections 22 have a substantially opposed spring direction  
relative to each other, outwardly away from each other, and are arranged such  
30 that an information carrier 2 can be pressed therebetween in the ring and the

projections 22 can engage against the outer contour, on the upper side and/or, preferably, fittingly on a beveled edge of the outer contour 23 of the information carrier 2 as shown in Fig. 7. In this embodiment, the information carrier is securely retained without the resilient projection 22 reaching far  
5 above the upper surface of the information carrier 2.

In the embodiment shown in Fig. 1, the second cover part is provided with a second upstanding edge 24, which, with the package 1 closed, fittingly abuts against the first upstanding edge 14, in the exemplary embodiment shown at the outside thereof, and against the closing surface 18 of the first  
10 cover part 4, while the edge 14 abuts against the closing surface 26 of the second cover part 6. The package 1 in its entirety and the closing surfaces 18, 26 are preferably manufactured through injection molding from plastic and with a method as mentioned in the introduction, while the wall thickness is preferably constant throughout. The wall thickness can be particularly thin,  
15 for instance less than 0.9 mm. Wall thicknesses of, for instance, between 0.6 and 0.3 are possible, so that material and weight as well as volume can be saved. Nevertheless, due to the closure of the package 1, a relatively rigid package is obtained, mainly due to the cooperating closing edges 14, 24. The information carrier itself can also contribute to the rigidity of the closed  
20 package as will become clear from Figs. 5 - 13.

In the embodiment shown in Fig. 1, in the second cover part 6, clamps 30 are provided, under which a booklet or the like can be secured. These are formed by core parts reaching through the closing surface 26. Optionally, at the outside of the package, a sleeve is or can be provided  
25 covering the holes 32 formed as a result hereof.

On the closing surface 26 of the second cover part 6, a third locking element in the form of a locking projection 34 is provided. This locking projection is placed close to the longitudinal edge 24, opposite the hinge means  
10, such that, with the package closed, it abuts against the contour 23 of the  
30 information carrier and/or against the upper side of the information carrier,



which upper side 35 faces away from the closing surface 18 of the first cover part. To that end, in the ring 20, recesses 36 are provided, located diametrically opposed to each other, on a line at right angles to the hinges 10. With the package 1 closed as shown in Figs. 3, 11 and 13, the projection 34  
5 falls in such recess. Preferably, the projection 34 has a stepped surface 38, so that a first surface 40 thereof rests on the ring 20, at least on the bottom of the recess 36, while another surface 42 thereof is held against the upper side 35 of the information carrier 2. This can prevent too much pressure being exerted on the information carrier.

10 On the back 8, adjacent the center, a fourth locking element in the form of a fourth projection 44 is provided, also having a stepped surface 45. Upon closure of the package 1, a first surface 48 thereof rests in the recess 36 adjacent the back 8 on the bottom thereof, on the ring 20, as shown in Figs. 3, 11 and 12, while the other surface 50 rests on the upper side of the information  
15 carrier 2. As a result, this is securely locked while undesired pressure on the information carrier can be prevented.

In Figs. 1A and 2A, an alternative embodiment is shown, wherein instead of or adjacent the fourth projection 44 a projecting edge part 20A of the edge 20 is provided. Adjacent the edge part 20A, two resilient elements 21 are  
20 provided as second locking means. Approximately diametrically opposed thereto lie second edge parts 20A. The CD 2 can be pressed under the edge parts 20A by pushing away the resilient elements 21 and is further locked by the resilient action thereof.

In Fig. 4, in opened condition, a package 1 is shown comparable to  
25 Fig. 1, wherein, however, on the second cover part 6 adjacent two corners 52 located opposite the hinges 10, clamps 30 are provided extending virtually diagonally across the corners 52 and which, in a center part, are provided with a deflection towards the closing surface 26. A booklet or the like can be secured hereunder. The clamps can be integrally formed in the position shown, but can  
30 also be injection molded while being pivoted outwards via, for instance, a hinge

54 and, after being formed, be folded inwards across the hinge 54 and then be secured, for instance welded or by means of hooks, clamps or the like. As a result of these clamps, in a simple manner, the booklets are prevented from falling open. In this embodiment, the resilient locking means 21 are placed  
5 opposite the edge part 20A.

With a package 1 according to Figs. 1 – 4 and 10 – 13, preferably, the information carrier is retained only to a limited degree with the aid of the first and second locking means such that, upon opening, the information carrier 2 does not fall from the package due to its own weight. Optional third  
10 and fourth locking means can then ensure further, more secure locking. Naturally, however, the first and second locking means can also suffice, which can clamp to a greater or lesser degree.

Figs. 5 – 7 schematically show in top plan view and cross sectional side views a further alternative embodiment of a package 1 according to the  
15 invention, wherein, again, a first cover part 4 and a second cover part 6 are provided, mutually connected by a hinge 10, designed in the exemplary embodiment shown as a living hinge 10. Preferably, this package 1 is of particularly thin design, for instance having a total thickness of some millimeters, for instance approximately 3.3 mm or approximately 5 mm, so  
20 that three or two of such packages 1, respectively, fit into the thickness of a standard Jewel-case or DVD package. Naturally, however, any thickness is possible.

On the first cover part 4, again, receiving means 12 are provided in the form of a ring 20 with projections 22 as described hereinabove. Within the  
25 ring 20, on the closing surface 18, small protrusions 62 are provided on which an information carrier 2 (not shown) can rest, preferably by unrecorded surfaces. These protrusions can, for instance, be small spheres, surfaces, rings or the like. Again, the projections 22 are provided with nose parts 22A which can lie on a beveled or rounded contour 23 of an information carrier 2 for  
30 clamping it, at least retaining it without the projection 22 reaching

undesirably far above the upper surface 35 of the information carrier 2. In the example shown, the upper side of the projection 22 is approximately level to the upper surface 35 of the information carrier 2.

On the side facing the second cover part 6, the first cover part 4 is  
5 provided with an upstanding ridge 64 which is beveled and extends above the side of the inwardly facing closing surface 18 of the first cover part 4. The upper free longitudinal edge of this ridge 64 determines the hinge 10, at least together with the edge of the second cover part 6 connected thereto. Upon closure of the package 1, the closing surface 26, optionally also provided with  
10 particularly small protrusions 62 as is the first cover part 4, will come to abut against the upper surface 35 of an information carrier 2 when this is received in the receiving means 12, for locking it. The longitudinal edge 24 will then fittingly and preferably clampingly abut against the outer side of the longitudinal edge 14, so that a good closure is obtained. Moreover, as a result,  
15 the package becomes relatively rigid, also because of the locked-in information carrier, while this is well protected from damage.

In Figs. 8 and 9 a comparable package 1 is provided as shown in the preceding Figures, but, in the embodiment shown particularly suitable for substantially rectangular information carriers (schematically shown in broken  
20 lines). In this embodiment, the closing surface 18 of the first cover part 4 is of profiled design, such that a lower, first part 66 and a higher, second part 68 are provided. The lower part 66 has substantially the contour of a rectangular information carrier to be received therein, while at three sides further recesses 70, 70A are provided. Two of these recesses 70A are located diametrically  
25 opposed to each other and in these recesses, projections 22 are provided which can be designed to be or to not be resilient. The projections 22 have noses 22A as shown in Fig. 7, for retaining an information carrier 2. The recess 70 located opposite the free longitudinal edge of the first cover part 4 is suitable for introduction of a finger part behind the information carrier 2. At the side  
30 opposite thereto, two inclining elements 72 are provided inclining upwards

from the bottom of the lower part 66 as far as the upper side of the longitudinal edge 14. An information carrier can either be pressed between the projections 22 in the lower part 66 or be slid under them along the inclining elements, and can be slid from the package by introducing a finger or different  
5 object behind the information carrier in the recess 70 and sliding the information carrier over the longitudinal edge 14, along the inclining elements 72.

Fig. 14 shows a perspective view of a package or device 1 according to the invention, wherein identical or corresponding parts again have identical  
10 or corresponding reference numerals, while, if necessary, reference is made to the further Figures and the description. In Fig. 14, a first cover part 4 is connected to the second cover part 6 through a hinge as discussed in, for instance, Figs. 5 and 6. In this embodiment, the corners 19 are raised relative to the center part 18A, at least relative to the closing surface 18 of the first  
15 cover part 4. To that end, the corners 19 can be designed to be solid, can be foamed or of hollow design at the outside. The corners 19 form an edge 20 with a substantially circular shape which corresponds to the contour of an information carrier 2 which is to be packaged in the device 1. A number of projections 22, which can be arranged to be resilient or not resilient and which,  
20 preferably, have some flexibility due to their form and material, are arranged along this contour. Such projections 22 have already been discussed. In the drawing, three projections 22 are provided, regularly interspaced. At each projection 22, small protrusions are provided on the center part 18A on which the information carrier can rest. One of the projections 22X and a corner 19 are  
25 provided on an edge part 18X, in particular on a corner part of the first cover part 4. This edge part 18X is pivotally connected by means of a hinge line B to the rest 18Z of the first cover part 4. At the location of the hinge line B, the edges 14 are preferably interrupted or thinner, at least of more flexible design, in order to facilitate pivoting. By not completely interrupting the edges 14, a  
30 recoil force to the flat, non-pivoted position can be obtained in a simple

manner. This means that the projection 22X can be pulled away downwards and/or bent with the aid of the edge part 18X, at least with the package 1 - opened, as is schematically shown in broken lines in Fig. 14. As a result, the projection 22X is pulled away from the contour of an information carrier 2 and  
5 the information carrier is released to be taken out as schematically shown in Fig. 14A. With this, in a simple manner, the information carrier is locked with the corner part 18X pivoted upwards and released in a simple manner with the corner part 18X pivoted downwards.

In the embodiment shown, with the package 1 closed, the second  
10 cover part 6 with an upstanding edge 26 is closed, in an earlier described manner, around the corners 19, at least the outer edge 14 of the first cover part 4, so that the package is closed and pivoting of the edge part 18X is prevented. To further improve the closure, in the second cover part 6, pins 90 are provided which fit into openings 92 in the two corners 19 on the first cover  
15 part 4, preferably somewhat clampingly. As one of the openings 92 is provided in the pivotable edge part 18X, this is even better secured against pivoting.

In Figs. 15 – 17, a package or device 1 is shown which is comparable to the one shown in Figs. 5 – 7, wherein, however, three projections 22 are provided, regularly interspaced. One of the projections 22X is provided on an  
20 edge part 18X, in particular a corner part, the other projections 22 on the remaining part 18Z of the first cover part 4. With this embodiment, the corner part 18X is designed to be pivotable and/or bendable about the line B, comparable to the embodiment according to Fig. 14. Here too, the information carrier comes to lie clear when the angle part 18X is pulled away downwards.  
25 With the embodiment shown in Fig. 15A, only three resilient projections are provided and the CD is locked therebetween.

Figs. 18 and 19 show a device according to Figs. 8 and 9, however, with one of the projections 22A provided on an edge part 68A which is connected to the first cover part 4 only by an edge, represented in Fig. 18 by  
30 the chain-dotted line B. Here also, by pivoting and/or bending the edge part

68A, the projection 22X can be pulled away from the information carrier for releasing it, while, when the package is closed, the edge part 68A can be held in a non-pivoted position by the second cover part and the information carrier, so that the information carrier is securely retained.

5           It is noted that in the same or comparable manner also different packages for information carriers such as CD's or DVD's can be designed having a pivotable edge part on which at least one projection or a different first and/or second locking element is included, as long as this can be pulled away from a contour of the information carrier, by relative pivoting and/or bending  
10 of the edge part relative to the further cover part with further receiving means for the information carrier. Here, for instance, use with packages according to the non-prepublished applications NL 1019501, NL 1019488, NL 1019923 and NL 1019924 can be considered, which are understood to be incorporated herein by reference.

15           With a package according to the invention, if the longitudinal edges 14, 24 fall over or along each other, the rigidity of the package is increased while, moreover, this becomes pilferproof. The fact is that an information carrier cannot be taken from the closed package without damaging the package, particularly not when, at the sides remote from the hinges, the cover  
20 parts are retained against each other with closing means known per se.

          Figs. 20 – 22 show a further variant of a package device according to the invention, comparable to the one shown, for instance, in Figs. 1 and 4, but with alternative locking means. Insofar as it is not expressly described differently herein, for a general understanding reference is made to the  
25 description of, for instance, the embodiments shown in Figs. 1 – 13. In this embodiment, again, there is an upstanding first edge 20, which is circular and which substantially follows the outer contour of an information carrier 2 to be packaged (not shown in Figs. 20 and 21), having, at the inside thereof, a second, lower edge 20A on which the information carrier can rest, preferably  
30 by an unrecorded part. On a first side, a first projection 22 is provided,

arranged to be resilient and provided with a profile as earlier described. The height of the first projection 22 is greater than the height of the second edge 20A and is preferably equal to the height of the first edge 20. Opposite the first projection 22, an arm 80 is provided which is resiliently connected to the closing surface 18 of the first cover part 4 and can pivot about a part 81 at a distance from the edge 20. At the side directed towards the first projection 22, the arm is provided with a profile approximately corresponding to that of the first projection 22 so that the arm 80 as well as the projection 22 can engage and retain an information carrier 2.

10 Figs. 22 A – C show, in cross sectional side view along the line XXII-XXII in Fig. 20, in three successive steps the retaining by and release from the receiving means 17 of an information carrier 2.

Fig. 22A shows an information carrier 2 received between the first projection 22 and the arm 80, with the profiles 83 engaging on and over the edge 23 of the information carrier 2. The first projection 22 is then somewhat elastically deformed and, as a result, is under some stress in the direction of the arm 80.

15 In Fig. 22B it is shown that the arm, under elastic deformation, is pressed down by the finger V, partly into an opening 82, at least with an upper surface 84 of the arm 80 to a point below the edge 23 of the information carrier 2. Thereupon, the arm 80 is released again by the finger V. As a result, it rebounds to the position as shown in Fig. 22C.

25 In Fig. 22C it is shown that the arm 80 has rebounded, while on the right hand side in Fig. 22 the information carrier is lifted, preferably to a point above the first edge 20. The information carrier 2 is then displaced by the resilient first projection 22, towards the right in the drawing, further above the arm 80. In this position, the information carrier can simply be taken hold of at the longitudinal edge 23 and be lifted from the package. Placing the information carrier is possible in a simple manner by pressing the information

carrier between the resilient first projection 22 and the arm 80, by tilting or not by tilting.

It will be clear that also several arms 80 and/or several first projections 22 can be provided, while, moreover, the edge 20 can be omitted if  
5 the information carrier is also confined sideways by the or each arm 80 and/or the or each projection 22. The projections 22 and/or the arm 80 then serve as first and second locking means.

With a package according to the invention, if the longitudinal edges 14, 24 fall over or along each other, the rigidity of the closed package is  
10 increased while, moreover, it becomes pilferproof. The fact is that an information carrier cannot be taken from the closed package without damage to the package, in particular not when the cover parts are retained at the sides remote from the hinges with closing means known per se.

Packages according to the invention can simply be manufactured in  
15 one piece from relatively little and inexpensive material which, furthermore, may have been recycled. On material, for instance up to more than 30% can be economized relative to the known packages, which is advantageous from the point of view of costs but also leads to less storage and transport costs, particularly so because the package can be relatively small.

20 In an advantageous embodiment, a package 1 according to the invention is formed from, in principle, transparent material. The first cover part 4 bearing the receiving means can then be made to be, for instance, entirely or partly unclear, at least opaque, for instance by designing the respective forming mold surface in an injection molding mold in which the  
25 package 1 is formed to be rough and/or by roughening the respective cover part. As a result, the information carrier 2 and the receiving means are hidden are from view at least for the larger part, and are better protected against undesired radiation. The second cover part 6 can then be completely or partly transparent by using a polished respective mold part, so that a booklet or other  
30 piece of printing which is locked-in with the information carrier remains



visible at the outside of the package. In a particularly attractive and advantageous embodiment, the surface 18A, for instance, of the first cover part 4 can be of transparent design within the edge 20 and the further first cover part 4 can be opaque, so that the information carrier is indeed visible from the outside through the first cover part but the locking means and/or their surroundings are not. This can, for that matter, also be used with all sorts of other one-piece, injection molded packages for information carriers. Then, for instance, use with packages according to the non-prepublished applications NL 1019501, NL 1019488, NL 1019923, NL 1019924, NL 1019235, NL 1019320 and the published patents NL 1001698 and EP-0886863 can be considered, which are understood to be incorporated herein by reference.

The invention is not limited in any manner to the exemplary embodiments represented in the description and the drawings. Many variations thereon are possible within the framework of the invention as outlined by the claims.

For instance, packages according to the invention can be of multipart design and be suitable for several information carriers, for instance by including receiving means as described hereinabove on both cover parts. Different embodiments can then be combined. Also, more than two cover parts can be provided in series, with one or more receiving means, which can be folded one over the other successively. More than two projections can also be provided as second locking means or only one, while a part of the ring is designed such that the information carrier can fall under it. Preferably, at least two fixed projections are used, such as the edge parts 20A, opposite one or more resilient elements 21, such that a CD can be moved under the or each edge part 20A by elastic deformation of the resilient elements 21. Optionally, the second locking means can even be dispensed with, when the third and/or fourth locking means and/or the second cover part are sufficient for retaining the information carrier in the package. The ring 20 with the projections 22 can also be provided instead of or, as well as along the outer contour of a central

opening of the information carrier, while the ring as such can be omitted if the second locking means are designed such that they define the position of the information carrier substantially unequivocally on the respective cover part, for instance by placing three projections along the outer contour, sufficiently interspaced, for instance mutually including an angle of approximately 120 degrees. The locking elements can also be provided on a tray.

A package according to the invention can be printed in a simple manner or be provided with a print by, for instance, in-mold labeling. Instead of the locking projections, also, a ring provided on the second cover part can be used for further locking the information carrier.

These and many further variations are understood to fall within the framework of the invention as outlined by the claims.